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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/053,408	01/23/2002	Ronald Peter van Heek	10326-72US KPM:ER	4342

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EXAMINER	
ALVO, MARC S	

ART UNIT	PAPER NUMBER
1731	

DATE MAILED: 07/29/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No.	Applicant(s)	
	10/053,408	VAN HEEK ET AL.	
	Examiner	Art Unit	
	Steve Alvo	1731	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *06 May 2004*.

2a)☒ This action is **FINAL**. 2b)☐ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *1-5 and 11-18* is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *1-5 and 11-18* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☐ The drawing(s) filed on _____ is/are: a)☐ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☐ All b)☐ Some * c)☐ None of:

1.☐ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☐ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☒ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) Paper No(s)/Mail Date *6-03*.
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____ .
5) ☐ Notice of Informal Patent Application (PTO-152)
6) ☐ Other: _____.

The following is a quotation of the first paragraph of 35 U.S.C. 112:

> The specification shall contain a written description of the invention, and of the manner and process of making and using it, in such full, clear, concise, and exact terms as to enable any person skilled in the art to which it pertains, or with which it is most nearly connected, to make and use the same and shall set forth the best mode contemplated by the inventor of carrying out his invention.

Claims 1-5 and 11-18 are rejected under 35 U.S.C. 112, first paragraph, as failing to comply with the enablement requirement. The claim(s) contains subject matter which was not described in the specification in such a way as to enable one skilled in the art to which it pertains, or with which it is most nearly connected, to make and/or use the invention. The specification does not enable one to measure PS_{UV}, PS_{GR} or PS_{VIS}. Applicant has not defined these terms, nor has Applicant indicated how they are obtained and measured.

The argument that PS_{UV}, PS_{GR} or PS_{VIS} are disclosed on page 10 is not convincing. The claims use equations that require numeric values for calculations of the ratios. Applicant has not disclosed how the values are calculated. There are various ways to calculate PS_{UV}, PS_{GR} or PS_{VIS}. Depending upon the equipment used, the artisan would obtain different values and/or different units of measurement. Applicant has not disclosed what units of measurement are obtained. Is the polysulfide concentration measured in moles/liter, grams/kg or some other unit? Are the units of measurement the same for each of PS_{UV}, PS_{GR} or PS_{VIS}?

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

Claims 1-5 and 11-18 are rejected under 35 U.S.C. 103(a) as being unpatentable over DORRIS et al (5,082,526) in view of TEDER ("Some Aspects of the Chemistry of Polysulfide Pulping) and KESTER et al (6,399,222) or HOLMQVIST et al (5,582,684) with or without Admitted Prior Art (Instant specification, page 13, lines 4-7). Applicant was correct in that added claims 15-18 should have been included in the rejection.

DORRIS et al teaches a method of producing an oxidized white liquor containing polysulfide by oxidizing a white liquor with oxygen in the presence of lime mud (column 4, line 51), to produce oxidized white liquor at a first concentration, and then the temperature of the oxidized white liquor is increased from 90 to 100 OC to complete the reaction (column 9, lines 24-25) and then stored. It would have been obvious to the routineer that this further reaction would increase the concentration of the polysulfide. TEDER teaches the importance of measuring and controlling the amount of polysulfide during polysulfide pulping and indicates that spectral analysis could be used to measure the polysulfide concentration. It would have been obvious to measure and/or control the polysulfide concentration in the pulping process of DORRIS et al to better control the pulping as taught by TEDER. KESTER et al or HOLMQVIST et al teach using UV spectral analysis to measure the sulfide concentration in pulping liquors. It would have been obvious to use the UV spectral analysis of KESTER et al or HOLMQVIST et al for the spectral analysis of TEDER to measure and control the polysulfide concentration in the pulping liquor of DORRIS et al and/or TEDER. The Admitted Prior Art teaches that the UV spectrometer operating at 286 nm is known in the art. It would have been obvious to use the known spectrometer of the Admitted Prior Art to measure and perform

the spectral analysis of TEDER and./or KESTER et al or HOLMQVIST et al. See HOLMQVIST et al, column 3, lines 3—31 for using a wavelength of 100-300 nm.

Applicant has argued that the references do not teach measuring active and inactive polysulfide. The claims are not limited to measuring active an inactive polysulfide. All of the claimed polysulfide measurements claimed would have been known to one of ordinary skill in the art as Applicant has stated that they are not new. Measuring and controlling the amount of polysulfide depending upon the temperature would have been obvious to one of ordinary skill in the art.

The following is a quotation of the first paragraph of 35 U.S.C. 112:

> The specification shall contain a written description of the invention, and of the manner and process of making and using it, in such full, clear, concise, and exact terms as to enable any person skilled in the art to which it pertains, or with which it is most nearly connected, to make and use the same and shall set forth the best mode contemplated by the inventor of carrying out his invention.

Claims 1-5 and 11-18 are rejected under 35 U.S.C. 112, first paragraph, as failing to comply with the written description requirement. The claim(s) contains subject matter which was not described in the specification in such a way as to reasonably convey to one skilled in the relevant art that the inventor(s), at the time the application was filed, had possession of the claimed invention. The addition of Figure 5 is new matter as it contains information that was not originally disclosed in Example 11. For example, R^2=0.9944 and R^2=0.9937 were not disclosed. The curves of the graph were nopt originally disclosed nor were the points on the graph shown as dots, e.g. at 90 ^{O}C, 75 ^{O}C, 80 ^{O}C, 92 ^{O}C and 70^{O}C. Example 11 discusses a lowest temperature of 60 ^{O}C and new Figure 5 has its lowest temperature at 63 ^{O}C. Example 11 states that 60 hours produces 6g/l of active polysulfide and Figure 5 shows this to be 6.0 g/l (see dot on graph at 6.0).

Example 11 states that at 103 ^{O}C, 2 hours is needed to produce 2.3 g/l of active polysulfide and Figure 5 shows this to be 2.0 g/l (see dot on graph at 2.0).

THIS ACTION IS MADE FINAL. Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Steve Alvo whose telephone number is 571-272-1185. The examiner can normally be reached on 6:00 AM to 2:30 PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Steven Griffin can be reached on 571-272-1189. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

Steve Alvo
Primary Examiner
Art Unit 1731

msa